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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Navy | <b>DATE:</b> February 2012 |
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| APPROPRIATION/BUDGET ACTIVITY   |         |         |              | R-1 ITEM NOMENCLATURE                              |               |         |         |         |         |                  |            |
|---|---------|---------|--------------|--|---------------|---------|---------|---------|---------|------------------|------------|
| 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> |         |         |              | PE 0204311N: <i>Integrated Surveillance System</i> |               |         |         |         |         |                  |            |
| COST (\$ in Millions)   | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO  | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
| Total Program Element   | 28.161  | 21.259  | 45.922       | -  | 45.922        | 29.221  | 32.637  | 34.795  | 21.174  | Continuing       | Continuing |
| 0344: <i>SUB AUXILIARIES</i>  | -       | -       | 2.998        | -  | 2.998         | 1.007   | 11.994  | 13.991  | -       | 0.000            | 29.990     |
| 0766.: <i>IUSS Detect/Classif System</i>  | 28.161  | 21.259  | 42.924       | -  | 42.924        | 28.214  | 20.643  | 20.804  | 21.174  | Continuing       | Continuing |

**A. Mission Description and Budget Item Justification**

This Program Element (PE) comprises two projects - 0766 and 0344. Project 0766 provides for Integrated Undersea Surveillance Systems (IUSS) Research and Development Projects under the Maritime Surveillance Systems (MSS) Program Office (PEO SUB PMS 485). IUSS provides the Navy with its primary means of submarine detection both nuclear and diesel. A portion of project 0766 (FSS) is classified, with details available at a higher classification level. Project 0344 funds the Shallow Water Surveillance System (SWSS) project to develop and demonstrate a deployable, medium endurance underwater sensor to detect and classify submarines specifically operating in shallow water areas.

The IUSS Research and Development project (0766) funds SURTASS Passive and SURTASS Low Frequency Active (LFA) developments. SURTASS provides the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. SURTASS LFA provides an active adjunct capability for IUSS passive and tactical sensors to assist in countering the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow quiet threats in harsh littoral waters.

In order to continue with reductions in life cycle costs and continue with system-wide consolidation, a short-term goal is to develop a common IUSS processor based on NAVSEA's Acoustic Rapid COTS Insertion (ARCI) program. The IUSS Integrated Common Processor (ICP) will have the capability to process and display data from all fixed and mobile underwater systems. The IUSS ICP will be used for all new system installations and replace the legacy systems as they reach end of life and require upgrading. Additionally, SURTASS has consolidated on the TB-29A Twin-line array, a variant of the Submarine TB-29A Long line array. This reduced the number of array variants employed by SURTASS from 3 to 1, and enabled development and logistics cost savings by leveraging off the submarine TB-29A program.

The Shallow Water Surveillance System (SWSS) project (0344) funds the development and demonstration of technology to enable a deployable, medium endurance underwater sensor to detect and classify submarines operating in shallow water areas of the world with sufficient timeliness and accuracy to permit re-acquisition of the submarine target using local tactical assets.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy |         |   |              | DATE: February 2012 |               |
| APPROPRIATION/BUDGET ACTIVITY                              |         | R-1 ITEM NOMENCLATURE                       |              |                     |               |
| 1319: Research, Development, Test & Evaluation, Navy       |         | PE 0204311N: Integrated Surveillance System |              |                     |               |
| BA 7: Operational Systems Development                      |         |   |              |                     |               |
| B. Program Change Summary (\$ in Millions)                 | FY 2011 | FY 2012                                     | FY 2013 Base | FY 2013 OCO         | FY 2013 Total |
| Previous President's Budget                                | 23.464  | 21.259                                      | 21.534       | -                   | 21.534        |
| Current President's Budget                                 | 28.161  | 21.259                                      | 45.922       | -                   | 45.922        |
| Total Adjustments  | 4.697   | -   | 24.388       | -                   | 24.388        |
| • Congressional General Reductions                         | -       | -   |              |                     |               |
| • Congressional Directed Reductions                        | -       | -   |              |                     |               |
| • Congressional Rescissions                                | -       | -   |              |                     |               |
| • Congressional Adds                                       | -       | -   |              |                     |               |
| • Congressional Directed Transfers                         | -       | -   |              |                     |               |
| • Reprogrammings   | 4.838   | -   |              |                     |               |
| • SBIR/STTR Transfer                                       | -       | -   |              |                     |               |
| • Program Adjustments                                      | -       | -   | 24.404       | -                   | 24.404        |
| • Rate/Misc Adjustments                                    | -       | -   | -0.016       | -                   | -0.016        |
| • Congressional General Reductions Adjustments             | -0.141  | -   | -            | -                   | -             |
| Change Summary Explanation                                 |         |   |              |                     |               |
| Technical: Not applicable.                                 |         |   |              |                     |               |
| Schedule: Not applicable.                                  |         |   |              |                     |               |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy  |                |                |                     |  |                      |                |                |  | <b>DATE:</b> February 2012 |                         |                   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> |                |                |                     | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204311N: <i>Integrated Surveillance System</i> |                      |                |                | <b>PROJECT</b><br>0344: <i>SUB AUXILIARIES</i> |                            |                         |                   |
| <b>COST (\$ in Millions)</b>  | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b>   | <b>FY 2013 Total</b> | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016</b>                                 | <b>FY 2017</b>             | <b>Cost To Complete</b> | <b>Total Cost</b> |
| 0344: <i>SUB AUXILIARIES</i>  | -              | -              | 2.998               | -  | 2.998                | 1.007          | 11.994         | 13.991   | -                          | 0.000                   | 29.990            |
| Quantity of RDT&E Articles  | 0              | 0              | 0                   | 0  | 0                    | 0              | 0              | 0  | 0                          |                         |                   |

**A. Mission Description and Budget Item Justification**  
The Shallow Water Surveillance System (SWSS) project (0344) funds the development and demonstration of technology to enable a deployable, medium endurance underwater sensor to detect and classify submarines operating in shallow water areas of the world with sufficient timeliness and accuracy to permit re-acquisition of the submarine target using local tactical assets.

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|---|----------------|----------------|----------------|
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>   | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013</b> |
| <b>Title:</b> SWSS<br><br><div style="text-align: right;"><b>Articles:</b></div>  | -              | -              | 2.998<br>0     |
| <b>FY 2013 Plans:</b><br>SWSS Funding in FY13 will be used for required activities to enable program initiation in FY15, to include acquisition documentation development, system engineering trade studies and early risk reduction testing of component technologies. |                |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>   | -              | -              | 2.998          |

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**D. Acquisition Strategy**  
TBD

**E. Performance Metrics**  
Development of the requirements document for SWSS is one of the primary acquisition documents that will be developed starting in FY13. Performance metrics will either be directly stated in that document or will be derived through the system engineering process used to describe the system specifications.

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|--|------------------------|--------------------------------|------------------------|--|------------|-----------------|------------|----------------------------------|------------|---------------------|------------------|------------|--------------------------|--|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                        |                                |                        |  |            |                 |            |                                  |            | DATE: February 2012 |                  |            |                          |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                        | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |            |                 |            | PROJECT<br>0344: SUB AUXILIARIES |            |                     |                  |            |                          |  |
| Management Services (\$ in Millions)   |                        |                                |                        | FY 2012  |            | FY 2013<br>Base |            | FY 2013<br>OCO                   |            | FY 2013<br>Total    |                  |            |                          |  |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost   | Award Date | Cost            | Award Date | Cost                             | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |  |
| Acquisition Documentation  | TBD                    | TBD:TBD                        | -                      | -  |            | 0.498           | Nov 2012   | -                                |            | 0.498               | 0.000            | 0.498      |                          |  |
| System Engineering Trade Studies   | TBD                    | TBD:TBD                        | -                      | -  |            | 1.000           | Nov 2012   | -                                |            | 1.000               | 0.000            | 1.000      |                          |  |
| Component Technology Risk Reduction Testing  | TBD                    | TBD:TBD                        | -                      | -  |            | 1.500           | Nov 2012   | -                                |            | 1.500               | 0.000            | 1.500      |                          |  |
| Need Item Text   | C/BA                   | Not Specified:Not Specified    | -                      | -  |            | -               |            | -                                |            | -                   | 0.000            | 0.000      |                          |  |
| Subtotal   |                        |                                | -                      | -  |            | 2.998           |            | -                                |            | 2.998               | 0.000            | 2.998      |                          |  |
|  |                        |                                | Total Prior Years Cost | FY 2012  |            | FY 2013<br>Base |            | FY 2013<br>OCO                   |            | FY 2013<br>Total    | Cost To Complete | Total Cost | Target Value of Contract |  |
| Project Cost Totals  |                        |                                | -                      | -  |            | 2.998           |            | -                                |            | 2.998               | 0.000            | 2.998      |                          |  |
| Remarks  |                        |                                |                        |  |            |                 |            |                                  |            |                     |                  |            |                          |  |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy  |   | DATE: February 2012                     |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE<br>PE 0204311N: <i>Integrated Surveillance System</i> | PROJECT<br>0344: <i>SUB AUXILIARIES</i> |
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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy   |  |  | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204311N: <i>Integrated Surveillance System</i> | <b>PROJECT</b><br>0344: <i>SUB AUXILIARIES</i> |                            |

Schedule Details

| Events by Sub Project                    | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| <b><i>Proj 0344</i></b>                  |         |      |         |      |
| Documentation / System Engineering       | 1       | 2013 | 4       | 2014 |
| System Development and Subsystem Testing | 1       | 2015 | 3       | 2016 |
| System Demonstration                     | 4       | 2016 | 4       | 2016 |
| Production                               | 1       | 2017 | 4       | 2017 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy  |         |         |              |  |               |         |         | DATE: February 2012                          |         |                  |            |
|--|---------|---------|--------------|--|---------------|---------|---------|--|---------|------------------|------------|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |               |         |         | PROJECT<br>0766.: IUSS Detect/Classif System |         |                  |            |
| COST (\$ in Millions)  | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO  | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                      | FY 2017 | Cost To Complete | Total Cost |
| 0766.: IUSS Detect/Classif System  | 28.161  | 21.259  | 42.924       | -  | 42.924        | 28.214  | 20.643  | 20.804                                       | 21.174  | Continuing       | Continuing |
| Quantity of RDT&E Articles   | 0       | 0       | 0            | 0  | 0             | 0       | 0       | 0  | 0       |                  |            |

## Note

The FSS portion of 0766 is classified with details available at a higher classification level.

## A. Mission Description and Budget Item Justification

A. This project includes efforts for SURTASS. The SURTASS project comprises the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. SURTASS also provides the undersea surveillance necessary to support regional conflicts and sea-lane protection. SURTASS has experienced recent passive and active success against diesel submarines operating in shallow water. SURTASS is leveraging existing developments and reducing costs by using Non-Developmental Items and commercial hardware, supporting common Navy Undersea Warfare processing and towed array developments, and increasing operator efficiency through computer-aided detection and classification processing. SURTASS development efforts include: LFA improvements, common IUSS processing, twin-line array development and processing, improved detection and classification/passive automation to counter quieter threats, additional signal processing, integrated active and passive operations, improved Battle Group support, and improved information processing.

LFA provides an active adjunct capability for IUSS passive and tactical sensors to counter the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow, quiet threats in harsh littoral waters. Improvements include TL-29A/LFA integration enhancements, advanced waveforms for littoral/shallow water operations including Doppler sensitive waveforms, and processing algorithms to reduce clutter and reverberation false alarms in shallow water. The LFA task includes development and testing of a compact LFA transmit source array for SWATH-P ships, and upgrade of LFA processing capability in the IUSS Integrated Common Processing (ICP) architecture. The ICP is a derivative of the NAVSEA Submarine Acoustic Rapid COTS Insertion (ARCI) program, and is being augmented for IUSS requirements. Together, the LFA improvements, TL-29A, and the ICP support the SURTASS Active Improvement Program.

Functional improvements are delivered to the Fleet in software "builds", while hardware improvements are delivered through the Tech Insertion (TI) process. Software builds are based on the Advanced Processor Build (APB) process begun by the NAVSEA Submarine USW program. Each APB will introduce new capabilities into SURTASS systems including improved automation, normalizer techniques, adaptive beam forming, and display enhancements. SURTASS participates in the process by contributing algorithms for consideration, supplying peer group members for review of candidate algorithms, participating in test evolutions, and incorporating improved algorithms into operational systems. The TI process, modeled after the NAVSEA Submarine USW hardware improvement program, delivers processing technology improvements to platforms on roughly a 4-year cycle. Hardware upgrades for active and passive arrays and communications systems will also be provided during TI upgrades, but not on a regular planned development cycle as for the processing upgrades.

B. PEO SUB is involved with the development and maintenance of various IUSS systems. These systems include FDS, FDS-C, and SURTASS. The near-term goal is development of ICP, which will result in a single IUSS processor baseline, with minor maintenance efforts continuing on fielded systems. The existing system

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy  |  | DATE: February 2012                          |            |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development   | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System | PROJECT<br>0766.: IUSS Detect/Classif System |            |            |
| architecture, signal processing, contact management, and reporting requirements will be evaluated as well as the requirements for future systems. The development of the ICP will take advantage of automation advancement, array technology improvements, along with IUSS, submarine, and surface USW system commonality. Additionally, a long term goal is to activate all IUSS sensors as part of a coordinated Active Improvement Program. The FSS portion of 0766 is classified with details available at a higher classification level.  |  |  |            |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   |  | FY 2011                                      | FY 2012    | FY 2013    |
| <p>Title: ASW Study</p> <p>Articles:</p> <p>FY 2011 Accomplishments:</p> <p>Continue trade-offs and studies for Distributed/Netted System concept. Evaluate Autonomous Burial Vehicle (ABV) burial improvement concepts from other sources for possible incorporation in Shallow Water Surveillance System solution. Conduct Matched Field Processing (MFP) model validation, and develop model-based statistics of MFP in various tactically significant areas for Anti-Submarine Warfare. Continue development of Reeling Pop-up Buoy (RPuB) by implementing anti-fouling device with extended at sea endurance test.</p>  |  | 0.659<br>0                                   | -          | -          |
| <p>Title: Compact Low Frequency Active</p> <p>Articles:</p> <p>FY 2011 Accomplishments:</p> <p>Complete DT for CLFA/TL-29A/ICP. Continue development of product improvements and corrections associated with CLFA DT and LFA FOT&amp;E. Conduct at-sea testing of product improvements. Conduct FOT&amp;E for LFA/TL-29A/ICP.</p> <p>FY 2012 Plans:</p> <p>Conduct OT of CLFA/TL-29A/ICP. Continue development of product improvements and corrections associated with CLFA DT/OT and LFA FOT&amp;E. Conduct at-sea testing of product improvements.</p> <p>FY 2013 Plans:</p> <p>Continue development of product improvements and corrections associated with CLFA DT/OT and LFA FOT&amp;E. Conduct at-sea testing of product improvements.</p> |  | 1.890<br>0                                   | 1.960<br>0 | 1.750<br>0 |
| <p>Title: TB-29A/Twin-Line</p> <p>Articles:</p> <p>FY 2011 Accomplishments:</p> <p>Continue development of connectionless array technologies and true fiber-optic arrays. Continue efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS.</p>  |  | 1.889<br>0                                   | 1.848<br>0 | 1.750<br>0 |



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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy   |  | DATE: February 2012                          |             |             |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development  | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System | PROJECT<br>0766.: IUSS Detect/Classif System |             |             |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  |  | FY 2011                                      | FY 2012     | FY 2013     |
| Continue development of fishing net mitigation approaches.<br><b>FY 2012 Plans:</b><br>Continue development of connectionless array technologies and true fiber-optic arrays.<br>Continue efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS.<br>Continue development of fishing net mitigation approaches.<br><b>FY 2013 Plans:</b><br>Continue development of connectionless array technologies and true fiber-optic arrays.<br>Continue efforts to explore Twin-line variants of new submarine Long-line arrays for future application to SURTASS.<br>Continue development of fishing net mitigation approaches.  |  |  |             |             |
| <b>Title:</b> Integrated Common Processor (ICP)<br><br><b>FY 2011 Accomplishments:</b><br>Continue development of new automation algorithms and techniques for addressing multi-array high beam count requirements.<br>Continue development of Littoral LFA improvements. Continue tech refresh development in coordination with the Submarine Acoustic Rapid COTS Insertion (ARCI) Program Advanced Processing Build (APB) tech refresh. Began addressing processing improvement recommendations and deficiencies associated with CLFA DT and LFA FOT&E.<br><b>FY 2012 Plans:</b><br>Continue development of new automation algorithms and techniques for addressing multi-array high beam count requirements.<br>Continue development of Littoral LFA improvements.<br>Continue tech refresh development in coordination with the Submarine Acoustic Rapid COTS Insertion (ARCI) Program Advanced Processing Build (APB) tech refresh. Continue to address processing improvement recommendations and deficiencies associated with CLFA DT/OT and LFA FOT&E.<br><b>FY 2013 Plans:</b><br>Continue development of new automation algorithms and techniques for addressing multi-array high beam count requirements.<br>Continue development of Littoral LFA improvements.<br>Continue tech refresh development in coordination with the Submarine Acoustic Rapid COTS Insertion (ARCI) Program Advanced Processing Build (APB) tech refresh. Continue to address processing improvement recommendations and deficiencies associated with CLFA DT/OT and LFA FOT&E. |  | Articles:<br>13.333<br>0                     | 12.136<br>0 | 11.018<br>0 |
| <b>Title:</b> Classified Effort   |  | 10.390<br>0                                  | 5.315<br>0  | 28.406<br>0 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy   |         |         |  |                |                  |  | DATE: February 2012 |         |         |                     |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development  |         |         | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |                |                  | PROJECT<br>0766.: IUSS Detect/Classif System |                     |         |         |                     |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  |         |         |  |                |                  |  | FY 2011             | FY 2012 | FY 2013 |                     |            |
| Description: The FSS portion of 0766 is classified with details available at a higher classification level.   |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2011 Accomplishments:<br>The FSS portion of 0766 is classified with details available at a higher classification level.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2012 Plans:<br>The FSS portion of 0766 is classified with details available at a higher classification level.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2013 Plans:<br>The FSS portion of 0766 is classified with details available at a higher classification level.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| Accomplishments/Planned Programs Subtotals  |         |         |  |                |                  |  | 28.161              | 21.259  | 42.924  |                     |            |
| C. Other Program Funding Summary (\$ in Millions)   |         |         |  |                |                  |  |                     |         |         |                     |            |
| Line Item   | FY 2011 | FY 2012 | FY 2013<br>Base  | FY 2013<br>OCO | FY 2013<br>Total | FY 2014                                      | FY 2015             | FY 2016 | FY 2017 | Cost To<br>Complete | Total Cost |
| • OPN/2237: Surveillance Towed<br>Array Sensor System   | 8.422   | 25.547  | 2.774  | 0.000          | 2.774            | 1.906  | 2.408               | 2.449   | 2.491   | 0.000               | 139.531    |
| D. Acquisition Strategy   |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2010: T&E Milestones: CLFA/TL-29A/ICP DT.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2011: Engineering Milestones: ICP Tech Refresh.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2011: T&E Milestones: CLFA/TL-29A/ICP DT. LFA/TL-29A/ICP FOT&E.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| FY 2012: T&E Milestones: CLFA/TL-29A/ICP OT&E.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| The FSS portion of 0766 is classified with details available at a higher classification level.  |         |         |  |                |                  |  |                     |         |         |                     |            |
| E. Performance Metrics  |         |         |  |                |                  |  |                     |         |         |                     |            |
| Successfully achieve CLFA Initial Operational Capability. Successfully complete CLFA Operation Test Readiness Review. Successfully complete CLFA Developmental Test / Operational Test. Successful demonstration of required LFA/CLFA improvements capability. Successful transition of Submarine Advanced Processing Build (APB) functionality into IUSS products. Successful transition of net mitigation technologies into Towed Array baseline. |         |         |  |                |                  |  |                     |         |         |                     |            |
| The FSS portion of 0766 is classified with details available at a higher classification level.  |         |         |  |                |                  |  |                     |         |         |                     |            |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                        |                                |                        |  |            |              |            |  |            | DATE: February 2012 |                  |            |                          |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                        | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |            |              |            | PROJECT<br>0766.: IUSS Detect/Classif System |            |                     |                  |            |                          |
| Product Development (\$ in Millions)   |                        |                                |                        | FY 2012  |            | FY 2013 Base |            | FY 2013 OCO                                  |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost   | Award Date | Cost         | Award Date | Cost   | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| IUSS COMMON ARCHITECTURE   | C/CPFF                 | LOCKHEED MARTIN:VA             | 8.132                  | 7.215  | Nov 2011   | 5.726        | Nov 2012   | -  |            | 5.726               | Continuing       | Continuing | Continuing               |
| IUSS COMMON ARCHITECTURE   | C/CPFF                 | APL/JHU:MD                     | 0.525                  | 0.525  | Nov 2011   | 0.565        | Nov 2012   | -  |            | 0.565               | Continuing       | Continuing | Continuing               |
| IUSS COMMON ARCHITECTURE   | Various                | VARIOUS:Not Specified          | 63.568                 | 0.755  | Nov 2011   | 0.790        | Nov 2012   | -  |            | 0.790               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENT/ CLFA/LFA   | WR                     | NFESC:CA                       | 0.398                  | 0.447  | Nov 2011   | 0.452        | Nov 2012   | -  |            | 0.452               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENT/ CLFA/LFA   | WR                     | SSC PAC:CA                     | 0.227                  | 0.227  | Nov 2011   | 0.226        | Nov 2012   | -  |            | 0.226               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENT/ CLFA/LFA   | C/CPFF                 | APL/JHU:MD                     | 0.375                  | 0.375  | Nov 2011   | 0.339        | Nov 2012   | -  |            | 0.339               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENT/ CLFA/LFA   | Various                | VARIOUS:Not Specified          | 116.529                | 0.323  | Nov 2011   | 0.339        | Nov 2012   | -  |            | 0.339               | Continuing       | Continuing | Continuing               |
| N74 ASW STUDY  | WR                     | SSC PAC:CA                     | 0.449                  | -  | Nov 2011   | -            | Nov 2012   | -  |            | -                   | Continuing       | Continuing | Continuing               |
| N74 ASW STUDY  | Various                | VARIOUS:Not Specified          | 7.545                  | -  | Nov 2011   | -            | Nov 2012   | -  |            | -                   | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | C/CPFF                 | APL/JHU:VA                     | 0.625                  | 0.625  | Nov 2011   | 0.677        | Nov 2012   | -  |            | 0.677               | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | WR                     | ADAPTIVE METHODS:VA            | 0.222                  | 0.271  | Nov 2011   | 0.229        | Nov 2012   | -  |            | 0.229               | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | Various                | VARIOUS:Not Specified          | 8.100                  | 0.365  | Nov 2011   | 0.337        | Nov 2012   | -  |            | 0.337               | Continuing       | Continuing | Continuing               |
| FSS - Classified   | Various                | TBD:Not Specified              | 11.535                 | 5.315  | Nov 2011   | 28.406       | Nov 2012   | -  |            | 28.406              | 0.000            | 45.256     |                          |
| Subtotal   |                        |                                | 218.230                | 16.443   |            | 38.086       |            | -  |            | 38.086              |                  |            |                          |
| Remarks<br>The FSS portion of 0766 is classified with details available at a higher classification level.                      |                        |                                |                        |  |            |              |            |  |            |                     |                  |            |                          |
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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                        |                                |                        |  |            |              |            |  |            | DATE: February 2012 |                  |            |                          |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                        | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |            |              |            | PROJECT<br>0766.: IUSS Detect/Classif System |            |                     |                  |            |                          |
| Support (\$ in Millions)   |                        |                                |                        | FY 2012  |            | FY 2013 Base |            | FY 2013 OCO                                  |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost   | Award Date | Cost         | Award Date | Cost   | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| IUSS COMMON ARCHITECTURE   | WR                     | SSC PAC:CA                     | 1.707                  | 1.511  | Nov 2011   | 1.524        | Nov 2012   | -  |            | 1.524               | Continuing       | Continuing | Continuing               |
| IUSS COMMON ARCHITECTURE   | Various                | VARIOUS:Not Specified          | 3.580                  | 0.310  | Nov 2011   | 0.314        | Nov 2012   | -  |            | 0.314               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENTS/CLFA/LFA   | WR                     | SSC PAC:CA                     | 0.194                  | 0.204  | Nov 2011   | 0.194        | Nov 2012   | -  |            | 0.194               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENTS/CLFA/LFA   | Various                | VARIOUS:Not Specified          | 7.207                  | 0.090  | Nov 2011   | 0.097        | Nov 2012   | -  |            | 0.097               | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | Various                | VARIOUS:Not Specified          | 0.283                  | 0.294  | Nov 2011   | 0.290        | Nov 2012   | -  |            | 0.290               | Continuing       | Continuing | Continuing               |
| Subtotal   |                        |                                | 12.971                 | 2.409  |            | 2.419        |            | -  |            | 2.419               |                  |            |                          |
| Test and Evaluation (\$ in Millions)   |                        |                                |                        | FY 2012  |            | FY 2013 Base |            | FY 2013 OCO                                  |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost   | Award Date | Cost         | Award Date | Cost   | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| IUSS COMMON ARCHITECTURE   | C/CPFF                 | LOCKHEED MARTIN:VA             | 0.953                  | 0.821  | Nov 2011   | 0.823        | Nov 2012   | -  |            | 0.823               | Continuing       | Continuing | Continuing               |
| IUSS COMMON ARCHITECTURE   | Various                | Not Specified:Not Specified    | 6.093                  | 0.392  | Nov 2011   | 0.395        | Nov 2012   | -  |            | 0.395               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENTS/CLFA/LFA   | WR                     | OPTEVFOR:Not Specified         | 0.125                  | 0.125  | Nov 2011   | 0.129        | Nov 2012   | -  |            | 0.129               | Continuing       | Continuing | Continuing               |
| ACTIVE IMPROVEMENTS/CLFA/LFA   | Various                | Not Specified:Not Specified    | 20.602                 | 0.071  | Nov 2011   | 0.072        | Nov 2012   | -  |            | 0.072               | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | C/CPFF                 | APL/JHU:MD                     | 0.189                  | 0.196  | Nov 2011   | 0.194        | Nov 2012   | -  |            | 0.194               | Continuing       | Continuing | Continuing               |
| ARRAY IMPROVEMENTS   | Various                | Not Specified:Not Specified    | 2.568                  | -  |            | -            |            | -  |            | -                   | Continuing       | Continuing | Continuing               |
| Subtotal   |                        |                                | 30.530                 | 1.605  |            | 1.613        |            | -  |            | 1.613               |                  |            |                          |
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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                        |                                |                        |         |  |              |            |             |            | DATE: February 2012                          |                  |            |                          |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                        |         | R-1 ITEM NOMENCLATURE<br>PE 0204311N: Integrated Surveillance System |              |            |             |            | PROJECT<br>0766.: IUSS Detect/Classif System |                  |            |                          |  |
| Management Services (\$ in Millions)   |                        |                                |                        | FY 2012 |  | FY 2013 Base |            | FY 2013 OCO |            | FY 2013 Total                                |                  |            |                          |  |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost    | Award Date   | Cost         | Award Date | Cost        | Award Date | Cost   | Cost To Complete | Total Cost | Target Value of Contract |  |
| IUSS COMMON ARCHITECTURE   | Various                | VARIOUS:Not Specified          | 4.300                  | 0.606   | Nov 2011   | 0.613        | Nov 2012   | -           |            | 0.613  | Continuing       | Continuing | Continuing               |  |
| ACTIVE IMPROVEMENTS/ CLFA/LFA  | Various                | VARIOUS:Not Specified          | 15.412                 | 0.098   | Nov 2011   | 0.097        | Nov 2012   | -           |            | 0.097  | Continuing       | Continuing | Continuing               |  |
| ARRAY IMPROVEMENTS   | Various                | VARIOUS:Not Specified          | 0.094                  | 0.098   | Nov 2011   | 0.096        | Nov 2012   | -           |            | 0.096  | Continuing       | Continuing | Continuing               |  |
| Subtotal   |                        |                                | 19.806                 | 0.802   |  | 0.806        |            | -           |            | 0.806  |                  |            |                          |  |
|  |                        |                                | Total Prior Years Cost | FY 2012 |  | FY 2013 Base |            | FY 2013 OCO |            | FY 2013 Total                                | Cost To Complete | Total Cost | Target Value of Contract |  |
| Project Cost Totals  |                        |                                | 281.537                | 21.259  |  | 42.924       |            | -           |            | 42.924                                       |                  |            |                          |  |
| Remarks  |                        |                                |                        |         |  |              |            |             |            |  |                  |            |                          |  |
| The R3 and the R4 / R4A reflect the UNCLASSIFIED portion of the PE.  |                        |                                |                        |         |  |              |            |             |            |  |                  |            |                          |  |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy  |   | DATE: February 2012                                 |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE<br>PE 0204311N: <i>Integrated Surveillance System</i> | PROJECT<br>0766.: <i>IUSS Detect/Classif System</i> |
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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy   |  |  | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204311N: <i>Integrated Surveillance System</i> | <b>PROJECT</b><br>0766.: <i>IUSS Detect/Classif System</i> |                            |

Schedule Details

| Events by Sub Project     | Start   |      | End     |      |
|---------------------------|---------|------|---------|------|
|                           | Quarter | Year | Quarter | Year |
| <b>Proj 0766.L24</b>      |         |      |         |      |
| CLFA / TL-29A/ ICP DT     | 1       | 2011 | 3       | 2012 |
| CLFA / TL-29A/ ICP OT & E | 4       | 2012 | 1       | 2013 |
| LFA / TL-29A/ ICP FOT & E | 1       | 2011 | 3       | 2012 |
| CLFA / TL29A / ICP (T21)  | 3       | 2011 | 4       | 2011 |
| CLFA / TL29A / ICP (T19)  | 3       | 2012 | 4       | 2012 |
| CLFA Production           | 1       | 2011 | 3       | 2012 |
| ICP Software Development  | 1       | 2011 | 4       | 2017 |
| ICP Tech Refresh          | 2       | 2012 | 2       | 2014 |